

41. (Amended): The apparatus as claimed in claim 39, wherein said pair of tool supports (1b, 2b; 1c, 2c) are held on a common support part (8) and can be displaced together with said common support part (8).

42. (Amended): The apparatus as claimed in claim 39, wherein said tool supports (1,2) have, in a lateral direction, a plurality of [optionally continually] positionable holders for said at least two tools (3), said at least two tools (3) being selectable as required from a group of cable-processing tools.

C1 Sub D6  
43. (Amended): The apparatus according to claim 42, wherein said group of cable-processing tools consists of at least one of cutting tools, severing tools, crimping tools, twisting tools, punching tools, clamping tools, marking apparatuses and [grinding means] grinders.

44. (Amended): The apparatus as claimed in claim 39, wherein said pair of tool supports (1,2) of said pair of tool supports are continuously adjustable relative to one another in a lateral direction or toward and away from said transport path (100)[, optionally independently of one another].

45. (Amended): The apparatus as claimed in claim 39, wherein said at least two tools (3) are arranged in pairs and comprise at least two pairs of [knives] blades.

46. (Amended): The apparatus as claimed in claim 45, wherein one blade of [said] one pair of [knives] said pairs of blades is above said cable and another blade of said one pair of [knives] blades is under said cable.

47. (Amended): The apparatus as claimed in claim 39, wherein said tool support feed [means] (5) comprises at least one motor and a programmable microprocessor for control of said at least one motor.

48. (Amended): The Apparatus as claimed in claim 39 [47] wherein said tool support feed [means] (5) comprises a cable absence sensor.

49. (Amended): The apparatus as claimed in claim 47, wherein a plurality of tool support feeds [means] (5) holding a plurality of tool supports (1,2) are arranged along said first transport path (100).

50. (Amended): A continuous cable processing apparatus, comprising:

C<sup>1</sup>  
a pair of tool supports (1,2) for holding at least two tools (3) in pairs, and  
a tool support feed[s means] (5) for [lateral] positioning of at least one of said at least two tools (3a, b, c, d) in a direction perpendicular to the working direction of said at least one of said two tools, [above] across a first transport path (100), along which a cable (107) whose insulation is to be stripped can be inserted in its feed direction, wherein

an encoder (41) is arranged on an [adjusting spindle] adjuster (14) for tool setting and monitors [rotary] movement of said [adjusting spindle] adjuster (14) in an operating state [as a function of drive movement of a drive (23; 16), optionally by comparison with a comparable encoder value of said drive (23; 16) on said encoder] in order to perform at least one of the following: to detect completed closure of said at least one of said at least two tools (3), to stop said drive movement, to calibrate and to initialize said drive or said encoder.

51. (Amended): A cable processing apparatus according to claim [50,] 91, wherein connection between said drive (23;16) and said spindle (14) is elastic[, optionally a coupling via a toother belt (24)].

52. (Amended) A process for operating a [cable processing apparatus] continuous cable insulation stripping apparatus having tool holders and insertable tools, [comprising] having at least the following steps:

C<sup>1</sup> employing a monitor that monitors an open state of said tool holders (1) or tools (3) and reduces a drive force of a drive motor (23; 16) shortly before closing said tool holders or tools, so that said drive motor brings said tool holders into a closed position with slight force[,

optionally detecting said closed position of said toll holders by virtue of an encoder connected to or integrated with said drive motor (23; 16) that loses its steps of rotary movement notwithstanding a supply of drive energy, or that said drive motor (23; 16) comes to a stop notwithstanding a supply of drive energy].

53. (Amended): A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path.

54. (Amended): [A cable processing apparatus] Apparatus as claimed in claim 53, wherein a cable is [received] receivable in a gap between opened rollers (A, B; 111) or belts (C, 112) and is transported onward by means of said rollers (111) or said belts (112) that are moved toward one another and held against one another under a contact pressure.

55. (Amended): [A cable processing apparatus] Apparatus as claimed in claim 53, wherein said rollers (111) or said belts (112) belonging to two pairs of rollers or belts (A,

B; 111; C; 112), are programmably adjustable relative to one another by [means of] at least one of stepping motors, a control [having an automatic RESET], a programmable circuit, and at least one pressure sensor for measuring or evaluating contact pressure on said cable (107) [that is coordinated with motors].

56. (Amended): A cable apparatus as claimed in claim 53, further comprising a control member having a computer which, in an operating state, after input of cable diameter, [and optionally,] cable type designation, and desired insulation stripping length, automatically calculates and sets at least one of an initial [opening] gap of said rollers or belt drive (A, B; 111; C; 112) and a contact pressure for stripping of [long] insulation sections, and appropriately controls said drives.

57. (Amended two times): A continuous cable processing apparatus having drive and processing stations, wherein a common baseplate and a front plate is provided, on which at least one of drive, feed, tool holders, and measuring or marking modules can be provided in a mountable manner at predetermined positions along a cable transport path [wherein the modules have individual front plates] and wherein at least one of said modules has its own front plate, independent from other said front plate(s).

58. (Amended): The apparatus as claimed in claim 57, wherein at least one of pairs of continuous belts (112) or rollers (111) of said feed module can be removed without replacement or can be replaced by at least one of drive rollers (111) or pairs of continuous belts (112), or a continuous belt pair module (C) can be replaced by roller modules (A, B), and vice versa.

59. (Amended): A continuous cable processing apparatus having drive and processing stations, with at least one moveable guide (40, 21) associated with a processing station

(3), wherein said guide (40, 21) is connected to a control that alternatively moves said guide completely from a cable transport path (100) during a cable processing mode.

60. The apparatus as claimed in claim 59, wherein at least one guide (40, 21) is arranged on that side of said processing station which faces a cable outlet.

61. (Amended): The apparatus as claimed in claim 59, wherein said guide (40, 21) [can be raised] is raisable in a radial plane relative to said cable transport path.

62. (Amended): The apparatus as claimed in claim 59, wherein one guide (40) each, [and at least one drive station (C ) each are] is arranged in front of and behind said processing station (3), [and said drive stations (C ) are arranged symmetrically with respect to said processing station (3)].

63. (Amended): A process for controlling a continuous cable insulation stripping apparatus, comprising:

employing a program that contains a control for controllable driving of said apparatus, said program comprising program steps coordinated with individual process steps,

combining a plurality of such program steps to form groups of operations, in which a step sequence is predetermined and control parameters of at least one step are selectable or adjustable, and

calling up groups of operations to trigger a plurality of program steps that are preprogrammed in such a manner [an] as result in control of drives in step sequence.

64. (Amended): The process as claimed in claim 63, wherein at least one of an individual program, process steps and control parameters linked therewith [can be] is set to at least one of [0] none and desired other parameters via an input unit.

65. The process as claimed in claim 63, wherein a plurality of program groups are combined to form overlapping program groups, and wherein individual program groups are shown as an overview and subsequently in detail on a display, said display permitting interactive correction of given values in individual program steps.

66. (Amended): A continuous cable [processing] insulation stripping apparatus, comprising along a first transport path definable by a cable axis,

C  
[a cable transport apparatus, which comprises at least one first and at least one second transport means (A, B; C; 111, 112, 113) for linear transport and holding of a cable (107) along]

a cable transport apparatus, which comprises at least one first and at least one second [transport means] transporters (A, B; C; 111, 112, 113) for linear transport and holding of a cable (107) along [a] said first transport path [definable by a cable axis (106)],

at least one [knife] blade station (E, F, G; 115) for holding at least one blade to be moved toward said cable axis along a working direction for processing said cable (107) [along said transport path (100)], said [knife] blade station (E, F, G; 115) being arranged between two of said [transport means] transporters (A, B; C, 111, 112, 113) and, before and after processing of said cable (107), said [transport means] transporters holding at least one of said cable and one each of cable end regions (107a, b) facing one another and created by said [knife] blade station, parallel to said first transport path (100) and so as to be movable in a cable longitudinal direction, wherein at least one of said [knife] blade station (E, F, G, 115) and said [transport means] transporter (A, B; C, 111, 112, 113) is displaceable approximately at right angles or at right angles to said first transport path

(100) and perpendicular to said working direction of said blade by [means of motor] a drive.

67. (Amended): [The cable processing apparatus] Apparatus as claimed in claim 66, wherein displaceability of one or more [transport means] transporters (A, B; 112, C, 113) permits parallel displacement of at least [of] one of said cable (107) and at least one cable end (107a, b) from said first transport path (100) to at least a second transport path (102, 103) and wherein a further processing station (16, 17) can be coordinated with said second transport path (102, 103).

68. The apparatus as claimed in claim 67, wherein said further processing station comprises at least one transport or processing station (16, 17), selected from the group consisting of an insulation stripping station, a sawing station, a cutting station, a twisting station, a shaping station, a crimping station, a soldering station, a cable processing station and a manipulator arm.

69. (Amended): The apparatus as claimed in claim 67, wherein at least one [transport] transporter [means] (A, B; [111] 4; C, 112, 113), is guided in a linear guide (110) transversely to said transport path (100) and can be moved by a drive apparatus (111 [-], 114).

70. (Amended): The apparatus as claimed in claim 69, wherein said [transport means] transporter is located one each on both sides of said [knife] blade station (E, F, G, 115).

71. (Amended): The apparatus as claimed in claim 67, wherein a drive apparatus (111 [-], 114) of each movable [transport means] transporter ([111,] 112, 113) and at least one independent transport drive is connected to a common control (200), and at least one further processing station (16, 17), so that all longitudinal and transverse movements can

be performed in a coordinated and time-optimized manner, in synchronization with the processing steps.

72. (Amended): The apparatus as claimed in claim 71, wherein said transport drive is located one each on both sides of said [knife] blade station (E, F, G, 115) and said common control (200) also controls said [knife] blade station (E, F, G, 115).

73. (Amended): The apparatus as claimed in claim 67, wherein two [transport means] transporters (112) are connected to one another by a common motor-controlled actuator (101) so that , transverse adjustment of one [transport means] transporter (112a) [inevitably] results in a diametrically opposite lateral adjustment of the other [transport means] transporter (112b).

74. (Amended): The apparatus as claimed in claim 67, wherein at least one [transport means] transporter (112b) is connected to at least one of said [knife] blade station (115 and tool support by a common, motor-controlled actuator (10[41]) so that transverse adjustment of one [transport means] transporter (112b) [inevitably] results in a diametrically opposite [trasverse] transverse adjustment of at least one of said [knife] blade station (115) and said tool support.

75. (Amended): The apparatus as claimed in claim 39, wherein [a] the processing station comprises at least one [of a] rotatable [knife] blade [and] of a second [knife] processing station having a rotatable [knife] blade (030), whose axis of rotation is along at least one transport path [is provided in addition to a knife station].

76. (Amended): A process for stripping insulation of a cable (107) [by means of] using an apparatus as claimed in claim 75 [comprising] having at least the steps of:



holding a cable (107) in a centered manner on at least two sides of the cable,  
during incision with the [knife] blade (030), and  
arranging at least one holding point in immediate vicinity of said [knife] blade

(030)[  
at least one of coupling a knife feed with at least one feed for clamping and  
centering apparatus and separating said [clamping feed] one feed for clamping and  
centering apparatus from said knife feed, and at least one of holding at least one of at  
least one of at least one transport means and centering apparatus nonrotationally and  
rotating said centering apparatus (111; 112) closest to said knife together with said  
knife.]

77. (Amended): The apparatus as claimed in claim [75] 76, wherein at least one of said  
clamping and centering apparatus (A, B; 111, C, 112; 013) comprise jaws which lie in a  
plane, each have a retaining surface, which retaining surfaces are [at least] approximately  
perpendicular to a radial plane with the cable (107) and are formed in such a way that  
closing of said centering jaws (A, B; 111; C, 112; 013) to approximately zero cable  
diameter is possible.

78. (Amended): The [insulation stripping] apparatus as claimed in claim 7[7]5, wherein a  
cutting apparatus comprises at least two [knife] blade jaws (030) which lie in a plane,  
each having a cutting edge, which cutting edges are formed at least approximately  
parallel to one tangential plane each of a cable (107) and can be closed to zero and can be  
advanced to give different initial contact points at an edge with a cable sheath, depending  
on cable diameter.

Sub E5  
79. (Amended): The apparatus as claimed in claim [47]75, wherein said [knife] blade station, and at least one centering clamping apparatus (A, B; 111, C; 112, 013) are in a form of an automatic processing module (057) which is removably mounted on a continuous cable processing machine (058).

80. The apparatus as claimed in claim 79, wherein said <sup>LAB</sup>module (057) is connected to a frame of said continuous cable processing machine (058) by a hinge (059) so that said machine can be swiveled out of an axial working position inclined relative thereto.

C1 Sub D8  
81. (Amended): The apparatus as claimed in claim 77, wherein said centering jaws (013) are L-shaped in section with retaining surfaces that cover a [relatively large] substantial axial range of a cable sheath and ends that project directly adjacent to said [knife] blade (030).

82. (Amended): The apparatus as claimed in claim 78, wherein, for controlling said rotatable [knives] blades (030) [along] across said transport path (100), displaceable rods (060) are provided which have, in a region of said [knife] blade holders (0150, wedge surfaces (016) which cooperate with diametrically opposite formations of said [knife] blade holder (015), said rods (060) coming into contact at another end with a wedge strap (018) which is displaceable along said transport path (100) by nonrotatable actuators (061).

83. (Amended): The apparatus as claimed in claim 66, wherein said first and second [transport means] transporter (A, B; C; 112, 113) [each] have at least one of one pair of rollers (A, B; 111) and one pair of continuous belts (C; 112).

Sub D9  
84. (Amended): The apparatus as claimed in claim 39, wherein at least one of an upper and a lower roller (111), continuous belts (112) of a pair of rollers, a pair of continuous

belts, respectively, and upper and lower tool holders (1) are each displaceable transversely with respect to said transport path (100), relative to an opposite part in each case, so that a twisting procedure can be performed on a cable (107) lying in between.

Sub E8  
C1  
85. (Amended): The apparatus as claimed in claim 39, wherein a guide apparatus (9) which can be swiveled at least one of laterally and upward or downward is provided[, which guide apparatus can be swiveled at least one of laterally and upward] to increase insulation stripping lengths, in order to enable a cable (107) already lying on another side of said tool (3) to be moved back against a feed direction without collision.

86. (Amended): [A processing for operating a cable processing apparatus] The apparatus as claimed in claim 39, having a cable processing station and tool holders, comprising:

[providing] a monitoring member which monitors an open state of said tool holders (1) and reduces a drive force of a drive motor (23; 16) shortly before closing of said tool holders, to bring said tool holders into a closed position with slight force[, and optionally detecting said closed position by virtue of an encoder associated with said drive motor (23; 16) that loses its steps of rotational movement notwithstanding drive energy].

Sub D10  
87. (Amended): A cable processing apparatus as claimed in claim 39 having a first and a second belt drive for a cable feed, [as claimed in claim 39,] wherein a gripping apparatus is coordinated with said second belt drive (112b); [if required,] said second belt drive (112b) releasing said cable (107) so that said cable (107) can be removed by gripping apparatus.

Please add the following new claims:

Sub  
D11

88. A continuous cable insulation stripping apparatus comprising at least one tool, at least one tool support, and a positioner that relatively positions the tool support or a cable in a direction perpendicular to the working direction of the tool wherein this positioning is controlled to more than two positions.

89. The apparatus as claimed in claim 44, wherein said tool supports are adjustable toward and away from said transport path (100).

90. The cable insulation stripping apparatus as claimed in claim 44, wherein said tool supports (1,2) are adjustable independently of one another.

C<sup>2</sup>

91. The cable processing apparatus according to claim 50, wherein said adjuster comprises an adjusting spindle.

92. The cable processing apparatus according to claim 50, wherein said adjuster adjusts as a function of drive movement of a drive (23; 16) by comparison with a comparable encoder value of said drive (23; 16) on said encoder.

93. Apparatus according to claim 51, wherein said connection comprises a coupling via a toothed belt (24).

94. Apparatus as claimed in claim 54, in which said gap is computer controlled.

95. Apparatus as claimed in claim 55, in which said control has an automatic reset.

96. Apparatus as claimed in claim 57, in which said modules are exchangeable.

97. The apparatus as claimed in claim 59, wherein one drive station each are arranged in front of and behind said processing station.

98. The apparatus according to claim 62, in which said guides are arranged symmetrically with respect to said processing station.

99. The apparatus according to claim 97, in which said drive station is arranged symmetrically with respect to said processing station.

Sub D12  
100. The apparatus according to claim 88, wherein displaceability of one or more transporters (A, B; 112, C, 113) permits parallel displacement of at least one of said cable (107) and at least one cable end (107a, b) from said first transport path (100) to at least a second transport path (102, 103), and wherein a further processing station (16, 17) can be coordinated with said second transport path (102, 103).

C2 Sub E12  
101. The apparatus according to claim 100, wherein said further processing station comprises at least one transport or processing station (16, 17), selected from the group consisting of an insulation stripping station, a sawing station, a cutting station, a twisting station, a shaping station, a crimping station, a soldering station, a cable processing station and a manipulator.

Sub D13  
102. The apparatus according a claim 100, wherein at least one transporter (A, B; 4; C, 112, 113), is guided in a linear guide (110) transversely to said transport path (100) and can be moved by a drive apparatus (111, 114).

103. The apparatus according to claim 100, wherein transporters are located on both sides of said blade station (E, F, G, 115).

104. The apparatus as claimed in claim 100, wherein a drive apparatus (111, 114) of each movable transporter (112, 113) and at least one independent transport drive, is connected to a common control (200), and at least one further processing station (16, 17), so that all longitudinal and transverse movements can be performed in a coordinated and time-optimized manner, in synchronization with the processing steps.

Sub E14  
105. The apparatus as claimed in claim 100, wherein transport drives are located on both sides of said blade station (E, F, G, 115) and said common control (200) also controls said blade station (E, F, G, 115).

Sub D14  
106. The apparatus as claimed in claim 100, wherein two transporters (112) are connected to one another by a common motor-controlled actuator (101) so that, transverse adjustment of one transporter (112a) results in a diametrically opposite lateral adjustment of the other transporter (112b).

C2  
107. The apparatus as claimed in claim 100, wherein at least one transporter (112a) is connected to at least one of said blade station (115) and tool support by a common, motor-controlled actuator (101) so that transverse adjustment of one transporter (112b) results in a diametrically opposite transverse adjustment of at least one of said blade station (115) and said tool support.

Sub E16  
108. The apparatus as claimed in claim 100, wherein the processing station comprises at least one rotatable blade or a second processing station having a rotatable blade (030), whose axis of rotation is along at least one transport path.

Sub D15  
109. A process for stripping insulation of a cable (107) using an apparatus as claimed in claim 108, having the steps of holding a cable (107) in a centered manner on at least two sides of the cable, during incision with the blade (030), and arranging at least one holding point in immediate vicinity of said blade (030).

110. The process for stripping insulation of a cable (107) as claimed in claim 77, having the step of coupling a blade drive with a clamping drive for a clamping and centering apparatus.

Sub D16  
111. The process for stripping insulation of a cable (107) as claimed in claim 110, having the step of separating said clamping drive from said blade drive.

112. The process for stripping insulation of a cable (107) as claimed in claim 111, having the step of holding at least one of a transporter and centering apparatus non-rotationally.

Sub D17  
113. The process for stripping insulation of a cable (107) as claimed in claim 111 having the step of [not] non-rotating said centering apparatus (111,112) closest to said blade with said blade.

C2  
114. The apparatus as claimed in claim 58, wherein said drive rollers are coated.

Sub E29  
115. The apparatus as claimed in claim 88, further comprising a transporter with two transport parts that are movable symmetrically to said transport path.

Sub D18  
116. The apparatus as claimed in claim 77, wherein said processing station comprises at least two blade jaws (030) which lie in a plane, each having a cutting edge, which cutting edges are formed at least approximately parallel to one tangential plane each of a cable (107) and can be closed to zero and can be advanced to give different initial contact points at an edge with a cable sheath, depending on cable diameter.

Sub E22  
117. The apparatus as claimed in claim 88, wherein at least one of an upper and a lower roller (111), continuous belts (112) of a pair of rollers, a pair of continuous belts, respectively, and upper and lower tool holders (1) are each displaceable transversely with respect to said transport path (100), relative to an opposite part in each case, so that a twisting procedure can be performed on a cable (107) lying in between.

118. The apparatus as claimed in claim 88, wherein a guide apparatus (9) which can be swiveled at least one of laterally and upward or downward is provided to increase

insulation stripping lengths, in order to enable a cable (107) already lying on another side of said tools (30) to be moved back against a feed direction without collision.

119. The process as claimed in claim 86, having at least the step of detecting said closed position by virtue of an encoder associated with said drive motor (23; 16) that loses its steps of rotational movement notwithstanding drive energy.

5ub D19  
C2  
120. A continuous cable insulation stripping apparatus having a first and a second belt drive for a cable feed, as claimed in claim 88, wherein a gripping apparatus is coordinated with said second belt drive (112b), said second belt drive (112b) releasing said cable (107) so that said cable (107) can be removed by a gripping apparatus.

121. The apparatus as claimed in claim 39, further comprising a computer that controls said sideward movement of said at least one support tool.

122. The apparatus as claimed in claim 88, further comprising a cable absence sensor.

5ub D20  
123. The apparatus as claimed in claim 88, wherein said tool, at least one tool support and said positioner are within one module.

124. A process as claimed in claim 52, further comprising detecting said closed position of said tool holders or tools by virtue of an encoder (41) connected to or integrated with said drive motor (23; 16) that loses its steps of rotary movement notwithstanding a supply of drive energy, or comes to a stop notwithstanding a supply of drive energy.

5ub D21  
125. The apparatus according to claim 88, comprising continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative



to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path.

126: A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path, further comprising a control member having a computer which, in an operating state, after input of cable diameter, cable type designation, and desired insulation stripping length, automatically calculates and sets at least one of an initial gap of said rollers or belt drive (A, B; 111; C; 112) and a contact pressure for stripping of insulation sections, and appropriately controls said drives.

127. A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path, wherein said rollers (111) or said belts (112) belonging to two pairs of rollers or belts (A, B; 111; C; 112), are programmably adjustable relative to one another by means of at least one of stepping motors, a control, a programmable circuit, and at least one pressure sensor for measuring or evaluating contact pressure on said cable (107).

128. A continuous cable processing apparatus, comprising